**Multiple Choice Questions**

Which of the following is are ways that plants are used in society?

1. Pharmaceuticals
2. Perfumes
3. Clothing
4. All of the above

Which of the following is not an artificial selection strategy used in plants?

1. Mass selection
2. Pure line selection
3. Crossbreeding
4. Cloning

Which of the following is not considered a nutrient for plants?

1. Nitrogen
2. Phosphorous
3. Potassium
4. Sodium

Which of the following processes does not lower plant biodiversity?

1. Primary succession
2. Artificial selection
3. Monocultures
4. Bioaccumulation

**Short Answer Questions**

1. The following graph tracks the amount of corn harvested from Old McDonald’s farm.

This particular farm has only grown corn over the past 10 recorded years. This is because there has been a huge demand for corn in the market.

*Part I*. Analyze the graph and suggest a possible explanation, related to agriculture, to what is causing the trend you see in the graph.

*Part II*. Suggest 2 possible strategies that the farmer can use to improve crop production in the future. Give an explanation to why you selected your particular strategies.

**Answer**: The farm is employing monocultures as its agricultural practice. Since this farm is only growing corn, the drop in crop production over the years is due to decreasing soil fertility. The corn crop has been exhausting the same type of nutrients from the soil, without giving the soil an opportunity to replenish the assimilated nutrients. Two possible strategies that can help improve this farm’s corn production would be to try crop rotation and use fertilizer to replenish the soil’s nutrients that has used up by the corn.